UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,736	10/31/2003	Jerry Z. Shan	200208138-1	3123

22879	7590	04/04/2006

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER
KUNDU, SUJOY K

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/698,736	SHAN ET AL.
	Examiner	Art Unit	
	Sujoy K. Kundu	2863	.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 December 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-30</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/31/2003</u>.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 1, 15, 22, 25 and 27 provides for the using the plurality of sequence and

using the trained detector, but, since the claim does not set forth any steps involved in

the method/process, it is unclear what method/process applicant is intending to

encompass. A claim is indefinite where it merely recites a use without any active,

positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 101

Claims 1, 15, 22, 25 and 27 are rejected under 35 U.S.C. 101 because the

claimed recitation of a use, without setting forth any steps involved in the process,

results in an improper definition of a process, i.e., results in a claim which is not a

proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153

USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131,

149 USPQ 475 (D.D.C. 1966).

In addition regarding claims 25-26 are rejected under 35 U.S.C. 101 because the

claimed invention is directed to non-statutory subject matter.

With respect to claims 25-26, a computer program is merely a set of instructions

capable of being executed by a computer, the computer program itself is not a process

and without the computer-readable medium, the computer program's functionality is

considered a nonstatutory functional descriptive material. See MPEP § 2105(III)(1)(A).

In addition a claims 25-26 does not produce a useful and tangible result. It is unclear

how a computer readable medium storing computer instructions trains a detector to

detect an interesting event in the data stream using the sensitivity parameter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 9-11, 12, 15-16, 17-18, 20-23, 25, 27, and 30 are rejected under

35 U.S.C. 102(e) as being anticipated by Desai (US 2003/0171900A1).

With regards to Claim 1, 12, 15, 17, 22, 25, and 27 Desai teaches a processor-

based method comprising:

receiving a data stream comprising a plurality of temporally ordered data points

(Page 1, Paragraph 10);

generating a plurality of sequences from a first portion of the data stream (Page

1, Paragraph 10); and

training a detector by determining a value for a sensitivity parameter ("threshold")

using the plurality of sequences (Page 1-2, Paragraph 12, Page 3, Paragraph 38-40) .

With regards to Claim 2 and 16, Desai teaches the method comprising running

the detector on a second portion of the data stream (Page 1-2, Paragraph 10-12).

With regards to Claim 4 and 18, Desai teaches the method wherein training the detector by determining the value for the sensitivity parameter comprises selecting the value for the sensitivity parameter based on a target level for an estimated performance characteristic of the detector (Page 3, Paragraph 38-40).

With regards to Claim 9, Desai teaches the method wherein generating the plurality of sequences comprises:

selecting a change based on a distribution of changes; and

generating a changed sequence based on the selected change (Page 3-4, Paragraph 38-42).

With regards to Claim 10, Desai teaches the method wherein the value of the sensitivity parameter comprises determining a plurality of values for the sensitivity parameter using the plurality of sequences (Page 3-4, Paragraph 38-42).

With regards to Claim 11, Desai teaches the method wherein determining the value of the sensitivity parameter comprises calculating a transformation of a second of the plurality of values for the sensitivity parameter (Page 9, Paragraph 108).

With regards to Claims 14, 20-21, and 23, Desai teaches the method comprising raising an alarm when a respective detector signals detection when parameterized by the respective sensitivity parameter and run on a second portion of a sufficient set of data streams (Page 6-7, Paragraph 75).

With regards to Claim 30, Desai teaches the system comprising means for injecting a change into the first portion of the data stream (Page 3-4, Paragraph 38-42).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 5, 6-8, 13, 19, 24, 26, and 28-29 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Desai as in view of Cox et al. (5,734,592).

Desai, teaches all the limitations as discussed above, however Desai does not

teach a method wherein running the detector comprises: generating a score

corresponding to the second portion of the data stream; comparing the score to the

determined value for the sensitivity parameter; and signaling detection in claim 3 and 5.

Regarding claims 3, 5, 19, 26, Cox et al. discloses a method wherein running the

detector comprises: generating a score (Fig. FA, 20) corresponding to the second

portion of the data stream (Fig. 4A, 20, Column 2, Lines 41-43); comparing the score to

the determined value for the sensitivity parameter (Fig. 4A, 20, Column 2, Lines 43-49);

and signaling detection (Fig. 4A).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to create a method wherein running the detector comprises:

generating a score corresponding to the second portion of the data stream; comparing

the score to the determined value for the sensitivity parameter; and signaling detection

as taught by Cox into Desai for the purpose of minimizing cost and providing increase in

operational time.

Regarding claims 13 and 24, Desai teaches all the limitations discussed above, however Desai does not teach a method for determining the value for the sensitivity parameter comprises determining the value for the sensitivity parameter at lease partially on cost parameters.

Cox teaches a method for determining the value for the sensitivity parameter comprises determining the value for the sensitivity parameter at least partially on cost parameters (Claims, Column 11, Claim 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include teaches a method for determining the value for the sensitivity parameter comprises determining the value for the sensitivity parameter at lease partially on cost parameters as taught by Cox into Desai for the purpose of providing increase in operational time

Regarding claims 6-8 and 28-29, are rejected under 35 U.S.C. 103(a) as being unpatentable over Desai and Cox as applied to claim 3 above and further in view of Ikeguchi et al. (US 2005/0075832 A1)

Desai as modified by Cox teach all the limitations above. However, Morita as modified does not teach inferring a statistical distribution of a known type to characterize the first portion of the data stream; and generating the plurality of sequences from the statistical distribution (claims 6 and 8). In addition, Desai as modified does not teach a discrete distribution containing data points from the first portion of the data stream, and wherein generating the plurality of sequences from the statistical distribution comprises selecting data points from the discrete distribution (claim 7 and 29). Furthermore, Desai

as modified does not teach inferring a known type of distribution comprises determining

a set of parameters corresponding to the known type of statistical distribution (claim 8).

With respect to claims 6 and 28, Ikeguchi discloses a method for inferring a

statistical distribution of a known type to characterize the first portion of the data stream;

and generating the plurality of sequences from the statistical distribution (Background of

the Invention, Paragraph 13). Furthermore, Ikeguchi discloses a discrete distribution

containing data points from the first portion of the data stream, and wherein generating

the plurality of sequences from the statistical distribution (Background of the Invention,

Paragraph 13) comprises selecting data points from the discrete distribution (Fig. 7A,

Page 5, Paragraph 65). Nevertheless, Ikeguchi discloses a method for inferring a known

type of distribution comprises determining a set of parameters corresponding to the

known type of statistical distribution (Page 5, Paragraph 69).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to include claims 6-8 and 28-29 as taught by Ikeguchi into Cox and

Desai for the purpose for facilitating an increase in processing speed.
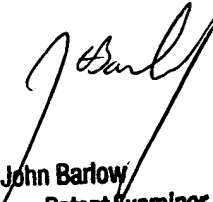
Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sujoy K. Kundu whose telephone number is 571-272-

8586. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

SKK
03/20/2006

John Barlow
Supervisory Patent Examiner
Technology Center 2800